Dear Mr. Chairman:

As you know, in October 1997, in order to assist NASA in identifying risk areas to the International Space Station, I chartered the Cost Assessment and Validation (CAV) Task Force on the ISS to perform an independent review and assessment of costs, budgets, and partnership performance. The CAV Report was submitted to NASA on April 15, 1998. I have synopsized NASA's assessment of the CAV Report in this letter. Enclosed is a more detailed NASA response to each recommendation and finding of the CAV Task Force.

First, let me point out once again how proud I am that, over the past 5 years, NASA has accomplished more with less and returned billions of dollars to the Federal Treasury to help enable the Congress and the President to balance the budget. As you know, since the redesign of the ISS in 1993, with the exception of $100 million provided by Congress in the FY 1998 VA-HUD-Independent Agencies Appropriations Act (P.L. 105-65) for NASA's contingency effort against Russian shortfalls, all additional resources required for the ISS have been identified within NASA's budget—while at the same time we have strengthened NASA's science, aeronautics and technology programs within an overall declining budget. The ISS has been, and will continue to be, a challenging, complex program for NASA to manage.

The CAV Task Force, chaired by Mr. Jay Chabrow, concluded that the funding and schedule estimates for the ISS are overly optimistic. Their estimate of the likely variance, with some exclusions, was additional annual funding of $130-250 million over the next 5 years, beginning with FY 1999, and an expected delay of 2 years in the completion of assembly date. Their point of departure was the FY 1999 budget plan and an assembly complete date of December 2003. Other potential funding concerns, not fully quantified in their report, included the X-38 Project/Crew Return Vehicle (CRV) development program, obsolescence upgrades, and Russian contributions to the ISS.

The near-term schedule risk to the ISS assembly sequence identified by the CAV Task Force has been largely dealt with by the recent revision of the ISS schedule by the international partners. This revision takes into account a 4-month schedule slip in the Russian Service Module (SM). The first element launch of the ISS is now scheduled for November 1998, with Assembly Complete scheduled for January 2004, 1 month later than previously planned.

While the Russian situation remains highly uncertain, they have recently taken several encouraging steps: (1) the Russian Space Agency (RSA) has reported that they have made near-term core ISS obligations their top priority, including launch of the Control Module (FGB) in November 1998, completion of integration and testing of the Service Module, and launch of the Service Module in April 1999; (2) RSA has shipped the SM from the Khrunichev factory to the Energia facility for checkout; (3) RSA has outlined a plan to deorbit the Mir space station earlier to allow them to focus their resources more fully on their commitments to the ISS Program; (4) RSA has replaced four smaller modules with a single FGB-type module and consolidated flight hardware in remaining Russian elements to further conserve funding; and, (5) RSA has reported that it and the Russian Government are working to identify potential commercial sources of funding for remaining planned ISS contributions. Even with these positive indications, we and the other international partners remain concerned about the impact of the recent economic and fiscal problems facing the Russian Government. RSA General Director Koptev has outlined a revised RSA budget for 1998 of 2.7 billion rubles (approximately $450 million), down from the originally approved 1998 RSA budget of 3.67 billion rubles. Of this amount, 40 percent (approximately 1 billion rubles or $160 million) has been identified for Russian ISS near-term core obligations. While this amount represents an increase in the percentage for the direct RSA budget previously allocated for the ISS, it is far short of the total 1998 requirement of $340 million previously identified for ISS activities ($100 million in direct funds, and $240 million in planned "supplemental" funds). The RSA has indicated that it will be able to afford within its budget only partial funding of long-lead items for future Soyuz and Progress vehicles.

Taking this and other developments into account, NASA concurs with the findings in the CAV Report that NASA's budget plan does not contain sufficient reserves in the ISS Program to provide coverage for all prospective technical and schedule risks inherent in such a high-risk, research and development effort. We also agree with the finding that the ISS schedule, through the date of assembly completion is tight, and is properly characterized as optimistic. NASA agrees that specific actions, some of which were identified in the CAV Report, could reduce risk and minimize the potential for schedule slippage. We will continue to investigate actions which may reduce risk exposure. An example of an action already taken using NASA's limited cost and schedule reserves is implementation of Multi-Element Integration Testing (MEIT) in Phase III of the ISS Program.

Through implementation of schedule risk-reduction actions, the ISS Program believes that it can reduce the CAV-projected schedule erosion to approximately 1 year. Preliminary estimates of potential additional funding requirements that would provide robust risk management investment and reserves for FY 2000 and beyond for the ISS Program are up to $1.1 billion. Those estimates indicate that the ISS Program has sufficient reserves available to it to offset the additional cost of schedule slips in FY 1999. This takes into account the combined availability of the $90 million made available as a result of the FY 1998 Supplemental Appropriations and Rescissions Act (P.L. 105-174) and NASA's pending request for FY 1999.

The CAV Report also questioned the adequacy of NASA's preliminary estimates in the FY 1999 budget plan of the projected funding plan and schedule for the U.S. Crew Return Vehicle (CRV). We agree that these estimates are immature. Additional funds could be required. A more conservative estimate of the funding plan would adjust the current estimates for the CRV for FY 2000 and beyond by adding up to $300 million, largely to increase the level of reserves. We also agree with the CAV Report's finding that additional effort should be undertaken in FY 1999 to reduce CRV development risks, and are examining the possibility of doing so within our FY 1999 program funding levels.

A critical finding of the CAV Report dealt with the program risk assumed by reliance on Russian-provided hardware and support. Given the fiscal environment in Russia, including the revised RSA budget for 1998, and uncertainty with respect to future budgets, countermeasures may be required by the United States to reduce the impact of further Russian funding shortfalls. A number of additional steps could be taken, ranging from specific interventions to ensure timely delivery of both the Service Module and the Soyuz/Progress vehicles, to specific U.S. hardware developments. The Administration and NASA are discussing the relative merits of these options. NASA is examining the hardware components which have long lead times, and is considering the near-term initiation of these components within existing budgetary resources. NASA will outline, in subsequent correspondence with the Committee, when and what preferred course of action is determined. We are exploring a range of options to address possible contingencies for near- and far-term Russian concerns. Depending on the course of action selected to reduce our dependency on Russian production capabilities or funding availabilities, NASA outyear budget implications will vary. The options under consideration will be further defined during formulation of NASA's FY 2000 budget.

NASA's estimates for risk reduction, CRV, and Russian contingency in response to the CAV Report are preliminary, and it would be premature for NASA to request an adjustment consistent with the recommendations of the CAV Report at this time. ISS Program Management has initiated a process to assess options and refine and validate these estimates with the objective of having more reliable estimates, as well as lower cost alternatives available to review within the Administration as part of the FY 2000 budget formulation process. It is NASA's assessment that potential actions linked to uncertainties in Russian Government funding to meet their ISS commitments could prompt the need for additional resources in FY 1999 for the ISS Program, within the Agency's request. It is essential that NASA retain adequate resources flexibility in FY 1999 which will be necessary to deal with unanticipated requirements for the ISS Program. We will spend the next few months carefully scrubbing these estimates, examining other alternatives, and assessing the urgency for making these changes. The results of these efforts will be reflected in the FY 2000 budget.

The next 12 months will be a great challenge, as the first several elements of the ISS are placed on-orbit and ISS development is completed, but I have every confidence in the NASA team. I would be pleased to discuss NASA's response to the CAV Report with you in greater detail. I greatly appreciate the support of this Committee, and I look forward to our continuing partnership in making the ISS a reality.

Sincerely,

Daniel S. Goldin
Administrator

Enclosure

cc:
The Honorable Louis Stokes